

### REMARKS

By an Office Action dated May 31, 2005 in the file of the above identified patent application, the Examiner rejected the application based on indefiniteness under 112 and also on various rejections based on the prior art. Based on this submission reconsideration of the merits of this patent application is respectfully requested.

The Examiner first pointed out a wording informality in Claims 4 and 5 of the application. The informality has been corrected in Claim 5 which the applicants can identify the informality. It is believed that Claim 4 always refers to "oligonucleotides" which is the same phrase used in Claim 1, and therefore the applicants are unable to find the lack of proper antecedent basis in Claim 4. The lack of antecedent basis in Claim 5 was understood, and it is believe corrected above.

The claims were also rejected as being anticipated by each of four separate references. The claims above have been amended and arguments are addressed herewith with regard to three of those references. No discussion is contained herein of the discussion of the Shah reference cited in the Office Action, supposedly US Patent No. 6,808,886. On the US Patent and Trademark Office web site this patent has been listed as withdrawn. If the patent is withdrawn, the applicants are not aware of how it can access this patent in order to analyze it for purposes of response to this Office Action. Accordingly, no response is made here to that ground of rejection since the reference is unavailable to the applicants.

With regard o the first ground of rejection to the reference to Adams et al., please note that the claims have been amended above to make it clear that the product as claimed herewith is an array, that is to say a series of features all constructed on a common planar substrate. It is believed that this recitation makes the patent to Adams not applicable to the claims. While Adams does show a single pair of oligonucleotides on a common spherical support, it does not anticipate nor suggest how a planar array of oligonucleotides could be constructed with two different oligonucleotides in single feature areas of the array.

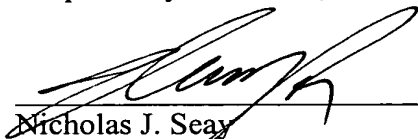
The next rejection was on a reference to Bao et al. The reference to Bao shows a spotted array which genomic DNA from thirty-one human putative amplified genes all in one single spot. The applicants respond herewith by reciting in the claims that the oligonucleotides are constructed and arranged on a planar substrate. This limitation is intended to define that the oligonucleotide probes are synthesized on the substrate of the array in place. Since the probes of Bao are spotted onto the array and are not constructed *in situ*, it is believed that the teachings by Bao do not anticipate the claims of the present invention.

Lastly, the claims of the application were rejected as anticipated by Gentalen et al. Gentalen disclose a method of using pooled probes in pooled positions on an array. The specific array designed by Gentalen comprises two probes with polymorphisms and arranged in a specific designed position where by each of the potential polymorphisms is paired in a specific relationship with other specific pairs of probes. Gentalen also specifically envisions that the array will include regions that bear single probes alone without the other being present. Thus Gentalen does not envision an array, such as envisioned by the applicants here, in which an array is formed in which each of the features has a pair of oligonucleotides which are different in nucleotide sequence. Accordingly, Gentalen also does not anticipate the product of the claimed invention.

Based on the changes to the claims made above, it is believed that none of these references cited by the Examiner that the applicants have access to anticipate the claims of the present invention. Accordingly, the merits of this patent application are respectfully requested to be reconsidered.

A separate petition for extension of time is submitted herewith so that this response will be considered as timely filed. Please charge the extension fee to Deposit Account No. 17-0055.

Respectfully submitted,



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